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EXCLUSIVE INDIVIDUALS

BILL BREWER

Introduction

I agree with a great deal in Helen's paper.¹ I am especially sympathetic to her suggestion that we gain metaphysical illumination by considering various ways in which we arrive at ideas of certain kinds of individuals by abstraction from those of more basic kinds. My aim is to pursue that suggestion in exploration of the proposal that a grounding node in this process of abstraction may be characterized by Exclusivity in spatial location.

§ 1 Stout, Steward, and Exclusivity

Stout argues that since processes are like enduring substances and unlike events in that they undergo change, we should think of processes as like such substances in not having temporal extension or parts (forthcoming).² Steward endorses the idea that individual processes undergo change; but she insists that Stout's conclusion is inconsistent with the correct articulation of the shared occurrent nature of processes and events precisely in terms of their being distinguished from enduring substances in having temporal extension and parts.

¹ My reference to Steward throughout is to her paper here (2015). Since its use is contested and can be confusing in this context, I avoid the term 'continuant'.

² Like both Steward and Stout, I assume throughout that substances endure rather than persisting by perdurance.

She concludes that processes are interestingly intermediate between enduring substances and events. They primarily have their properties, not at times, like substances, or atemporally, like events, but between times, although harmless idealization allows the ascription of certain properties at times within periods over which they primarily have such properties. They are therefore precisely a counterexample to Stout's inference from undergoing change to not having temporal extension or parts.

This all seems right to me. My question is how these categories interact with the idea of a unified class of Exclusive Individuals (EI's), persisting things, any pair of which necessarily meet the following condition: if there is any time at which \underline{Q} and \underline{Q}^* are precisely colocated, then $\underline{Q}=\underline{Q}^*$. In other words, no two distinct Exclusive Individuals are ever precisely colocated. One way to approach the role of Exclusivity is via Helen's diagram concerning two modes of abstraction in cases of change: leading to an event that is that change, on the one hand, or to the process of something's changing, on the other. The proposal that I consider here is that Exclusive Individuals lie at the ultimate apex of that triangle.

Events and processes are occurrents. As Steward rightly insists against Stout, the correct way to register this fact is in terms of the idea that events and processes have temporal extension and temporal parts. Hence the location of any temporally extended event/process at a given time is precisely the location of a proper temporal part of that event/process that is also a temporal part of distinct events/processes that are more, or less, extended in time than the original event/process. Thus, events and processes fail Exclusivity. There are

distinct temporally extended such occurrents, \underline{o} and \underline{o}^* that are precisely colocated at certain times. Consider, for example, the event of the Philharmonia's performance of Beethoven 3 on a specific occasion. Its spatial location five minutes into the performance is precisely that of the distinct event of their performance of its first movement on that occasion. Hence Exclusivity fails. Similarly, in the case of processes, consider the dripping of Helen's tap throughout the whole Christmas period. Its location at noon on Christmas Day is precisely that of the distinct process of its dripping throughout Christmas Day. Again, Exclusivity fails.³

Another kind of case threatens Exclusivity even in the domain of substances, putting pressure on the idea that there is any unified class of EI's at all. The standard example concerns a clay statue. Suppose that a lump of clay is detached from a large block and some time later fashioned into a person-shaped statue that might be squashed back into a ball in sculptural dissatisfaction shortly thereafter. The statue stands before me now: call it 'Goliath'. The lump is before me too: call it 'Lumpl'. Lumpl existed prior to any sculptural intervention, and would remain after any subsequent squashing. It is often said that Goliath did not exist prior to sculpting, and would not exist after squashing. For there was, and would be, no statue there then. In that case, Goliath and Lumpl are distinct yet precisely located before me now. On the assumption that Lumpl and Goliath

³ Likewise, four-dimensional perdurants fail the Exclusivity condition as intended. For, in the sense in which there is one persisting such thing in a certain location at a given time, there are many that all share the temporal part that is more strictly there then. The evaluation of Exclusivity on the Stage View (see e.g. Sider, 2001), and what to make of it from the perspective that I explore here, is a more complex matter for another occasion.

are both substances, then they constitute a counterexample to Exclusivity for that category of individuals.

I argue in § 2 that this is a mistake. There is a unified class of Exclusive Individuals containing the familiar substances; and we can understand these as fundamental to our worldly ontology in the following sense: we understand the nature of other individuals by various modes of abstraction from the substantial EI's upon which they are grounded.

§ 2 Exclusivity v Colocation

Here is an alternative view of the of Lumpl/Goliath case. Lumpl is a substance existing throughout. It came into existence when detached from the large block, and will be destroyed, let us say, when the statue, or squashed ball, is broken up. Its shape was slowly, deliberately, painstakingly, transformed by the sculptor in accordance with her evolving aesthetic-representational project. Eventually, as the intentional accomplishment of that plan, it took on the shape of a human person. Lumpl therefore became a statue. So, insofar as 'Goliath' names the substance before me that satisfies the predicate 'x is a statue', the statue itself, then Goliath=Lumpl. The error in what is often said is to infer from the fact there was no statue prior to sculpting, and the fact that there would be no statue after squashing, that the substance before me now that is a statue, namely Goliath, did not, or would not, exist then. That inference is essential to the argument against Exclusivity; yet it may be denied. For Goliath, AKA Lumpl, existed before it became a statue, and would exist after it ceased to be a statue if it were simply

squashed into a ball. Hence this case is no counterexample to the Exclusivity of such substances.

Before reflecting further on the relative merits of this alternative view of the case, it would be helpful to clarify which familiar substances are supposed to be amongst the EI's. This is something that is susceptible to reconsideration and revision as we accumulate relevant empirical and theoretical evidence; but here are some candidates that I would currently propose. First, there are naturally occurring things, such as a cat that is conceived, grows inside its mother and is born, lives an active life, perhaps loosing a tail on the way, dies, and eventually disintegrates by decomposition; or an acorn that falls from an oak, sprouts in the ground, and grows to become a grand old oak that is finally destroyed by loggers; or a rock that detaches and falls from a cliff, gradually eroding to become a small pebble, and perhaps even a grain of sand on the beach, before vanishing altogether. Second, there are human-made EI's, such as a lump of clay created by being torn en masse from a large block, shaped gradually over time into a statue, squashed back into a ball, left to dry out and eventually broken up into tiny pieces with a sledge hammer; or a coin, minted and much used, discarded out of circulation, battered and bent, used as tool to open tins, and winding up in a museum collection, before finally melting away in a fire.

How, then, should we assess the alternative that I offered above to the view of Lump/Goliath-type cases as counterexamples to Exclusivity within the domain of substances? Both sides agree that Lump and Goliath exist precisely colocated before me now. The opponent of Exclusivity (the anti-Exclusivist) argues that

they are distinct, since Lumpl also existed, and would do so, at times that Goliath did not, and would not. The proponent of Exclusivity (the Exclusivist) insists instead that Goliath just is (numerically identical to) Lumpl, named 'Goliath' when it comes to be person-shaped, and hence that Goliath likewise existed, and would do so, at these other times too.

A first question is how widespread this phenomenon of distinct but precisely colocated substances is supposed to be. The template for producing cases numerically distinguishes artefacts, in a very broad sense, including at least aesthetic and functional artefacts, from the material substances that at some time constitute them: Goliath and Lumpl, respectively, in our familiar example.⁴ Since one may deliberately form lumps or pieces of all sorts of stuff, and indeed even animals, into such aesthetic or functional artefacts, the template apparently applies quite generally. For example, a piece of metal, Mike, may be shaped in order to open tins, producing a tin-opener, Tinny; a piece of plastic, Pat, may be heated and reshaped in order to serve as a replacement button on a coat, Tony; a dog, Rex, may even be trained to adopt a specific pose in which it is displayed for a few hours only as living art-work, Art. In each case the question arises: is Tinny/Tony/Art distinct from but constituted by Mike/Pat/Rex, or is Tinny/Tony/Art instead identical to Mike/Pat/Rex? Certainly there was no tin-opener/button/art-work around before the relevant purposive intervention. Should we infer that Tinny/Tony/Art did not exist then and so must be distinct

⁴ I follow Wiggins (1968, 2001) in using 'constitution' to name the proposed asymmetric relation between distinct colocated substances in such cases. Others endorsing the anti-Exclusivist view include Johnston (1992), Baker (1997), Thompson (1998), and Fine (2003, 2008).

from Mike/Pat/Rex. Or should we insist instead that Tinny/Tony/Art just is Mike/Pat/Rex, and existed before it became a tin-opener/button/art-work and acquired its second name? A little imagination generates similar questions in relation to very many, if not all, familiar substances. So the debate between opponents and proponents of Exclusivity in such cases is fundamental to the evaluation of the idea that there is any unified class of EI's.

A preliminary point to make in adjudicating this disagreement is that the Exclusivist's identity claim is always available at least in principle. So the argument offered above for the distinctness of artefact and constituting material substance is inconclusive as it stands. The anti-Exclusivist's case depends on a principled reason to reject the identification. But why should we reject the Exclusivist's claim that the substance before me now that is a statue, Goliath, is the currently person-shaped lump of clay there, Lump1? Well, Lump1 existed when there was no statue there and would continue to do so if there ceased to be one. So the identification entails that Goliath did, and would, exist in those circumstances. Hence it depends upon the idea that the statue before me now is only accidentally a statue. Yet the anti-Exclusivist in question here is an essentialist, endorsing the thesis that any substance that is a statue is essentially a statue. This essentialism constitutes a principled reason to reject the Exclusivist's identification of colocated substances.

So what is to be said in defence of the anti-Exclusivist's essentialism? One suggestion is that this is required if artefacts are to have determinate persistence conditions, and this in turn is a necessary condition on their status as individual

substances (Wiggins, esp. 2012). But, whatever the merits of these ideas in general, the two conjuncts of this suggestion are inconsistent in the current dialectical context. For suppose that individual substances do necessarily have determinate persistence conditions. It is crucial to the anti-Exclusivist's use of the example of Goliath and Lumpl that both are individual substances that therefore have determinate persistence conditions. The Exclusivist identifies Goliath with Lumpl and so gives Goliath precisely the determinate persistence conditions of Lumpl. Yet the Exclusivist rejects the relevant form of essentialism: the statue Goliath is only accidentally a statue. Hence the contested essentialism is not required if artefacts like statues are to have determinate persistence conditions. There is no motivation here for the anti-Exclusivist's essentialism.⁵

Instead, the idea must be that the persistence conditions given by the Exclusivist for artefacts like statues are incorrect: the contested essentialism is required to give such things the correct persistence conditions, rather than to give them any determinate persistence conditions at all. The anti-Exclusivist argument set out above offers an example that might be supposed to establish this, in which it is said that there are times at which Lumpl did exist, and would exist, at which Goliath did not, and would not. This is in opposition to the Exclusivist's insistence that the persistence conditions for Goliath are precisely those of Lumpl. The problem is that the ground for saying that Goliath did not, and would not, exist then is precisely the essentialist thesis under contention. That is to say,

⁵ The issue for the Exclusivist of how to ensure that proposed EI's such as Lumpl have determinate persistence conditions in the sense required for their status as genuine individual substances is not straightforward. It is particularly pressing in connection with their loss and gain of parts. For a discussion of some of the problems and possibilities here, see my (forthcoming).

essentialism is assumed in claiming that Goliath begins to exist only during, or at the end of, the sculpting process, and would cease to exist if the sculptor squashed the statue in dissatisfaction with her work. Again, there is no independent motivation here.

It is true that we may find it odd to say some of the things about this case that the Exclusivist regards as true. For example, pointing at Goliath, ‘that statue was lying in the corner of the studio a year ago (when Lumpl had just been detached from the large block of clay and the sculptor had not even started her work)’, or, pointing at an undistinguished ball of clay a week from now, ‘this is the beautiful statue that I saw last week’. But there is a relatively straightforward explanation of the oddness of saying such things consistent with their truth. In the first case, the truth is that the substance that is a statue before me now lay in the corner of the studio a year ago before it became a statue. The oddness lies in the false implicature, carried by referring to it specifically as the statue that it now is, that it was already a statue then. In the second case, the truth is that the beautiful statue that I saw last week and this undistinguished ball are one and the same substance. The oddness lies in the false implicature that it is still a beautiful statue, carried again by referring to it as the beautiful statue that I saw last week. The same combination of oddness and truth arises in connection with the following cases where I take it that the analogue of the Exclusivist’s position is also endorsed by anti-Exclusivists in connection with Goliath/Lumpl. Pointing at Heston Blumenthal, I say ‘that great chef once cooked for me’ or, pointing at a rather decrepit ex-footballer, ‘this is my mother’s pin-up’. There are false implicatures that Heston was already a great chef when he cooked for me – in

fact he may have been hopeless and the meal a disaster – and that the person before me still personifies my mother’s ideals of male beauty. Yet these are no reason to deny the numerical identities of Heston with the man who cooked for me and of the ex-footballer with the man whose pictures my mother adored.

Similar points apply against a more direct approach sometimes taken by opponents of Exclusivism. Modifying a case of Wiggins’ (2012, p. 9), for example, we may say that the statue, Goliath, was made by the sculptor, whereas the lump of clay, Lumpl, was not. Does it not immediately follow that Goliath and Lumpl are distinct? Well it certainly would if the truth of what we say entailed that Goliath has a property that Lumpl does not, namely the property of being brought into existence by the sculptor. According to the Exclusivist, though, if the sculptor detached Lumpl from the large block of clay herself, then she thereby brought Goliath into existence, although before it was shaped into a statue, as she did Lumpl. For they are one and the same. If she did not detach the lump herself, then she brought neither into existence. Still, what we mean when we say that she made Goliath is that she made Lumpl into a statue; and she may certainly have done that even if she did not herself bring Lumpl into existence. But that is perfectly consistent with their identity. Likewise, we may say, looking at Viktoria Mullova, ‘that violinist was made by Leonid Kogan at the Moscow conservatoire’, even though Kogan did not bring the woman before us into existence, without denying that that woman is the great violinist: a property she acquired through Kogan’s teaching in Moscow. Again, we could bolster the Leibniz Law strategy by insisting that statues are essentially statues, and so inferring from the fact that our sculptor brought it about that there is a statue

now before me that she really did bring that substance, Goliath, into existence in the sense in which she did not bring Lumpl into existence if it was detached from the large block by her assistant instead. But this appeal to essentialism just takes us back round the now familiar circle.

So the anti-Exclusivist's case so far crucially depends upon, and provides no independent support for, the disputed form of essentialism. In considering whether there are really conditions in which Lumpl existed, or would exist, in the absence of Goliath, we have reached something of a stand-off.

In § 3 I consider an alternative argument for the claim that the Exclusivist is unable to give the correct persistence conditions for artefacts of the kinds in question: there are apparently conditions in which Goliath may persist in the absence of its currently constituting material substance Lumpl. But evaluating this argument requires more stage-setting.

An important virtue of Exclusivism is that its proponents are in a position to offer a kind of concession to anti-Exclusivist opponents. So far we have been envisaging the term 'Goliath' being used to pick out the persisting material substance before me now that is a statue: according to the Exclusivist, this is Lumpl. Instead, though, we may decide to use the term 'Goliath' to name a quite different kind of individual that is grounded upon Lumpl by a form of abstraction: Lumpl's being a statue. Steward's discussion of the abstraction involved in our recognition of various processes, such as the dripping of a tap, provides a model by which we might understand this suggestion, and why it

constitutes a kind of concession to the anti-Exclusivist, although one that might equally be described as a diagnosis of their error.

Whilst a tap is dripping, we may abstract to form the idea of an individual occurrent, the process that it is thereby undergoing, namely the dripping of that tap. Similarly, the Exclusivist might say, whilst a lump of clay, Lumpl, is a statue, we may likewise abstract to form the idea of an individual occurrent, the process that it is thereby undergoing, namely Lumpl's being a statue. We may then, if we wish, use the name 'Goliath' to name that individual process. To avoid confusion, I distinguish two names in what follows, 'Goliath_s' and 'Goliath_p', for the substance that is a statue (Lumpl, according to the Exclusivist) and the process of that thing's being a statue, respectively, instead of attempting to keep apart two distinct uses of the same name, 'Goliath'.⁶

So Goliath_p is the process of Lumpl's being a statue: the being a statue of Lumpl. It is therefore essentially something's being a statue, just as the dripping of a tap is essentially a dripping. Before the tap in question started dripping, and were it shortly to be fixed, there was, and would be, no dripping of that tap, and – here the inference is valid – that dripping of the tap did not and would not exist.

Similarly, before Lumpl became a statue, and if it were to cease to be one, Goliath_p did not, and would not, exist. Thus, Goliath_p has the persistence

⁶ It is true that Goliath_p is not much of a changing, as Steward characterizes processes. It is rather an unchanging; but still, I claim, it is an unfolding process of Lumpl's remaining a statue: things are going on over time in virtue of which this is the case. One may quarrel about the term 'process' here, although I will continue to use it. The crucial point is that Goliath_p is a perduring individual grounded on Goliath_s by a kind of abstraction.

conditions that anti-Exclusivists wish to force on Goliath_s at least in connection with the example as described so far. Yet this constitutes no counterexample to Exclusivity within the domain of substances. For Goliath_p is not an enduring substance at all, but a perduring occurrent process grounded upon the enduring substance, Lumpl.

The Exclusivist's concession, then, is to admit that there is something that behaves very much as anti-Exclusivists take Goliath_s to behave, namely Goliath_p. But the concession is harmless. For the two must be distinguished; and Exclusivity holds in the domain of substances. Indeed, this might better be described as a diagnosis of anti-Exclusivist error than as a genuine concession. The anti-Exclusivist mistakes a process that is essentially something's being a statue for a distinct substance precisely colocated with Lumpl. Goliath_s is a substance that is only accidentally a statue and Goliath_p is essentially something's being a statue. The latter is not a distinct substance. It is not a substance at all, but a kind of process grounded upon Lumpl, which we understand by abstraction from the fact that Lumpl itself is a sometime statue. Substances may have essential properties. But these are not created simply by our attention to some of the ways that they happen to be.

§ 3 Collection

The argument against Exclusivity that we have been considering so far concerns conditions in which Lumpl supposedly exists, or would exist, in the absence of Goliath. In the present section I consider an alternative argument for the claim

that the Exclusivist is unable to give the correct persistence conditions for artefacts of like statues from the possibility of conditions in which Goliath supposedly persists in the absence of its currently constituting material substance Lump_l. I set the stage for that argument and its assessment by considering the Exclusivist interpretation of a related case.

Suppose that I have a note of currency in my hand from an economic system in which payment with paper money is possible if and only if the single serial number on the bottom left-hand corner of the front face is legible. Call it 'Note'. Now suppose that the front bottom left-hand corner of Note gets wet. The ink runs and the serial number becomes illegible. By analogy with the Exclusivist account of Lump_l/Goliath above, although I no longer have a valid unit of currency in my hand, the substance that previously satisfied the predicate 'x is a unit of currency', Note_s, is still there, although it no longer satisfies that predicate. We may also identify a distinct individual, the process of Note's being a unit of currency, Note_p, grounded upon Note_s. This is essentially something's being a unit of currency, and it does not survive Note_s getting wet. There is no counterexample to Exclusivity in the domain of substances, though.

Suppose now that, in order to keep the economy stable, a new note is printed with the serial number previously on Note_s. Call this 'Replacement_s'.

Replacement_s is a substantial unit of currency: a substance satisfying the predicate 'x is a unit of currency'. It is likely qualitatively indistinguishable from Note_s before the wetting; but of course Replacement_s and Note_s are numerically distinct. There is also the process of Replacement_s's being a unit of currency,

Replacement_p. And we may, if we wish, consider a composite individual consisting of Note_p followed by Replacement_p. But this does not bring into existence, still less recognize as anyway present, an enduring substance, 'Currency_s', say, previously constituted by Note_s and now constituted by Replacement_s, just as the forthcoming election of Ed Miliband will not bring into existence, or draw our attention to, an individual substance 'Prime Minister' currently constituted by David Cameron and subsequently constituted by Ed Miliband. It does not follow from the fact that there is a trajectory of processes, all of which are instances of something's being E, for some property E that we care about deeply, that there is an individual enduring substance that is essentially E and follows precisely that trajectory.

Similar points apply, according to the Exclusivist, in the following modified case. Instead of getting wet, Note_s loses a tiny corner. Sadly, this happens to be the front bottom left-hand corner containing the serial number. So Note_s, now very slightly smaller, survives but ceases to be a unit of currency and Note_p is terminated. There is no need to print a new note, though. The tiny fragment of paper that was created by Note_s losing a corner contains a legible serial number. So this is a replacement small but substantial unit of currency, Replacement_s. Note_s can no longer be used to pay for goods, Replacement_s can. If this in turn gets wet, then it ceases to satisfy the predicate 'x is a unit of currency' and Replacement_p is terminated; a new note, Replacement*, has to be printed. Once again, the property of being a unit of currency is passed between distinct substances, Note_s, Replacement_s, and Replacement*_s (as the property of being Prime Minister will be passed from Cameron to Miliband); there are likewise

three distinct processes of each of these in turn being a unit of currency, Note_p , Replacement_p and $\text{Replacement}'_p$; there is no further substance, distinct from Notes_s , Replacements_s , and $\text{Replacement}'_s$, yet colocated with and constituted by each of these in turn.

Now let us return to Goliath/Lumpl. The anti-Exclusivist contention is that the Exclusivist is bound to give Goliath_s incorrect persistence conditions; for there are conditions under which Goliath_s persists in the absence its currently constituting Lumpl, which the Exclusivist mistakenly identifies Goliath_s with. For suppose that Goliath loses its nose, which has to be replaced, then an arm, and finally its whole lower body, each in turn replaced by duplicates. Surely, it is said, Goliath_s remains, but Lumpl is no more. Hence $\text{Goliath}_s \neq \text{Lumpl}$ and Exclusivity fails in the domain of substances. The case has many variations; but I offer a series of suggestions for an adequate Exclusivist response.

Each successive operation consists of a subtraction followed by an addition. The subtraction may be gradual and minor, the nose worn down over years of viewers' rubbing, say, or sudden and major, as the whole lower body drops off due to splitting at the waist; and the addition may be 'homogeneous', by clay built up and integrated with the noseless face, or 'heterogeneous', by a hastily cast concrete replacement lower body, say.⁷ So there are a number of possibilities. Lumpl may either survive or be destroyed by the subtraction. If

⁷ I use these terms as shorthand to distinguish adding to a substance in such a way as to increase its size, on the one hand, from attaching a distinct substance to it thereby producing a mere composite of two distinct substances, on the other. The principles governing this distinction are non-trivial; but all parties to the current dispute accept its existence.

Lumpl is destroyed, by division in half at the waist, say, then Goliath_s is no more. What is created by the addition is either a new homogeneous lump of clay that is accidentally a statue qualitatively identical to but numerically distinct from Goliath_s, along the lines of the Replacement_s in the Note case above, or some kind of heterogeneous composite that is not a unified substance at all: a lump of clay attached to a lump of concrete.⁸ We may think of the resulting composite as a 'statue'; but this is like thinking of Gilbert and George as a statue. It neither creates nor recognizes the prior existence of any individual substance. Suppose instead that Lumpl survives, through the gradual rubbing down of its nose, say. Is it still a statue? Very plausibly yes in this case; but probably not if the gradual rubbing down were more significant over a longer period and Lumpl's shape were no longer recognizably human. I take these two cases in turn. In the first case, Goliath_s remains, noseless, and Goliath_p continues. If the addition is homogeneous, then Lumpl, i.e. Goliath_s, increases in size a little and we are back to square one. If the addition is heterogeneous, then Lumpl/Goliath_s acquires an appendage: a lump of concrete attached where its nose used to be. There is a noseless statue with a concrete nose stuck on. In the second case, Goliath_s remains again, this time no longer a statue. So Goliath_p is interrupted. If the addition is homogeneous, and built up gradually, then perhaps this increases the size of Lumpl/Goliath_s until it becomes a statue again and Goliath_p resumes. If the addition is heterogeneous, then Lumpl/Goliath_s remain as a non-statue and simply acquires a large concrete attachment. Again, we may think of the resulting composite as a 'statue'; but it is no individual substance.

⁸ See my forthcoming for discussion of such 'mere composites'.

§ 4 Activity, Change, and Colocation

At this point the Exclusivist may go on the attack. How can there be distinct material substances precisely colocated at any time: isn't it in the nature of such things to exclude each other from their precise location at all times? This is why two identical twins can never be colocated, for example, however closely they match in size and shape. The standard response to this intuitive challenge is to point out that, unlike identical twins, colocated substances share the same material for the duration of their colocation (e.g. Wiggins, 1968, 2001). But this simply serves to press the question what then distinguishes the two, especially since we have seen how the supposedly constituted substance may be identified without loss with the supposedly constituting substance that accidentally satisfies the relevant artifact kind predicate.⁹

Fine (2008) argues that the only satisfactory account of their distinctness posits a difference in form as a non-material component of colocated substances.¹⁰ This is a powerful idea with an excellent pedigree. But I put it to one side here, along with other views on which distinctness is supposed to be extrinsic, historical, biological, or simply brute, in order to consider what seems to me to be the most promising anti-Exclusivist account that ironically also illuminates the case for Exclusivity in the domain of genuine substances.¹¹

⁹ See e.g. Sosa (1987), Olson (2001), and Bennett (2004), for this challenge to ground the distinctness of colocated substances.

¹⁰ See Koslicki (2008) for development of this Aristotelian view.

¹¹ See Baker (2000), Bennett (2004), and Crane (2012) for some other views of distinctness. The account that I consider has been developed over many years by Wiggins (1967, 1980, 2001, 2012) and is extended by Jones (2015).

What is it for there to be a persisting macroscopic material object over and above any fundamental simples that there may be; and why are there just those such things that there are rather than any counterintuitive ‘bazillionfold’ multiplication of them?¹² The basic idea that I consider in what remains is that material objects are subjects of characteristic law-like activity and change, whose nature is given by these features rather than by any principle of composition from a unique plurality of simples.¹³ The activity and change in question are the activity characteristic of the kind of thing that the object is and the change that objects of that kind may survive, as opposed to change that destroys them. Individual objects are individual paths of such activity and change. Which such things there are depends on the laws governing such activity and change that actually obtain.

This proposal is neutral as between genuine substances and the various individual processes grounded upon them that we have also been considering here.¹⁴ The dripping of a specific tap, for example, is an individual instance of a kind of persisting process – a tap’s dripping. As such, it involves characteristic activity and change. It makes a certain kind of sound that changes in timbre and pitch as the water heats up and the basin fills up, and it causes irritation to those in earshot. It survives some changes, in the frequency and regularity of the

¹² See e.g. Sider (2013) for the nihilist extreme and Bennett (2004) for the ‘plenitudinous’ extreme. All parties to the debate that I am considering here believe something in between.

¹³ See Jones (2015) for an application of this idea as a solution to the Problem of the Many.

¹⁴ This is why I use the term ‘object’, intended broadly, for the entities whose nature the current proposal seeks to elucidate.

dripping, for example; but is terminated by others, such as the tap's being turned off completely or the water beginning to flow freely.

Similarly, consider the process of Heston Blumenthal's being a chef, HB_p , as opposed to HB_s , the man that cooked for me before he became a chef and is currently a very well known chef. HB_p is again an individual instance of a kind of process, a person's being a chef. As such, it involves characteristic activity and change. It may involve some chopping here, some shouting there, and some thinking about the correct proportions of various ingredients; it brings entertainment to those watching and delight to those eating. It survives movement from one restaurant to another and could even survive becoming one-handed – witness Michael Caines' being a chef one-handedly. It was brought into existence by a great deal of learning and experience in the kitchen, and would plausibly be terminated by injury sufficient to prevent all cooking activity, or HB deciding to focus entirely on his violin playing and never cook again, for example.

In just the same way, the Exclusivist will urge, $Goliath_p$ is an individual instance of a kind of process, a lump of clay's being a statue, in this case, $Lumpl$'s being a statue. As such, it involves characteristic activity and change. It is brought into existence by the sculptor's careful and deliberate shaping of $Lumpl$. It is the focus of a certain kind of critical-aesthetic evaluation and may be involved in various kinds of protection from damage and theft. It survives movement from museum to museum, but would be terminated by the sculptor squashing $Lumpl$ back into a ball in dissatisfaction with her work.

So far as I can see, these are all persisting macroscopic material objects in the sense under consideration, every bit as much as HB_s and Lumpl, whose characteristic activity and change are of course distinct from those of the various processes that are in this way grounded upon them. Furthermore, distinct material objects understood in this way may be precisely colocated. For example, HB_p is colocated with HB_s; and Goliath_p is colocated with Goliath_s.¹⁵ In all these cases, the relevant paths of characteristic activity and change precisely overlap.

We have a model to understand this, to understand how there can be such colocated yet distinct material objects. This applies paradigmatically in the case of HB_p and HB_s; and the Exclusivist applies it equally in understanding the statue case. There is a single substance, HB_s, that is accidentally a chef. The substantial chef is that man; but we may also consider the process of his being a chef, HB_p. This is a distinct yet colocated persisting material object with its own characteristic activity and change grounded on HB_s. Similarly, there is a single substance in the case of our statue, Goliath_s=Lumpl, which is accidentally a statue; but we may also consider the process of its being a statue, Goliath_p. This is a distinct yet colocated persisting material object with its own characteristic activity and change grounded on Lumpl.¹⁶

¹⁵ Indeed, HB_p may be temporarily colocated with HB_v too, the process of Heston's being a violinist, during the period in which he is actively involved in both cooking and playing the violin in preparation for a permanent switch of career from the kitchen to the concert platform.

¹⁶ We understand the colocation of HB_p and HB_v since both are colocated processes grounded on HB_s that are temporarily concurrent.

The Exclusivist's point so far is that this model is completely satisfactory as an explanation of the phenomena cited in opposition to Exclusivity in the domain of substances. Yet it is perfectly consistent with Exclusivity. Furthermore, the model depends upon the fact that at least one of the colocated material objects in question is a process grounded upon a more basic material object of which it is a specific kind of changing, or unchanging/remaining. So either this grounding terminates in a basic domain of Exclusive Individuals, or it is processes all the way down. The Exclusivist under consideration here may reasonably feel that the latter is unacceptable, since it is inconsistent with the commitment to the existence of substances as enduring material individuals. For, as Steward rightly insists against Stout, it is in the nature of process that they persist by perduring as a succession of unfolding temporal parts.

Put more directly, the argument is this. Both parties to the current debate accept that there are endurants, call them substances. Now suppose that Exclusivity fails in the domain of these substances. Then it follows from the model that we have before us, inspired by the Wigginsian account of what it is for there to be persisting macroscopic material objects at all, that at least one of any pair of colocated yet distinct substances is in fact a process grounded upon the other, or upon some more basic persisting object, of which it is a kind of unchanging/remaining. This individual therefore persists by perduring as a succession of temporal parts, and is therefore not an endurant at all. So we have a contradiction. It follows that the enduring substances satisfy Exclusivity.

Thus we have a case for a rather traditional picture, on which Exclusive enduring

substances are the most basic macroscopic material subjects of activity and change. Of course it is open to opponents of Exclusivity to reconsider the idea of any genuinely enduring macroscopic material objects at all, and embrace the idea of potentially colocated processes all the way down. But the debate that I am concerned with here takes place between proponents of enduring material substances. So the Wigginsian model that I have been considering offers a motivation for precisely the Exclusivity within the domain of such substances that he himself rejects.

Conclusion

Steward insists on two distinctions where others have seen just one: amongst the individuals that undergo change, between those that endure and those that occur; and amongst the individuals that occur, between those that undergo change and those that do not. This leaves us with three categories: substances, processes, and events. One may then choose to use the term *continuant* to include just the first, or the first and the second together. Not much hangs on the terminology, provided that both distinctions are respected. I endorse Helen's diagrammatic representation of this situation in terms of varieties of abstraction in cases of change, or its absence in a particular respect; and I add my own suggestion that Exclusive Individuals lie at its grounding apex.¹⁷

¹⁷ I am grateful to the following for helpful comments on earlier versions of this material. Michael Ayers, Quassim Cassam, Jennifer Hornsby, Chris Hughes, Nick Jones, Rory Madden, Gonzalo Rodriguez Pereyra, Matt Soteriou, and David Wiggins. My views here owe a great debt to teaching over many years from Michael Ayers.

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